



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

PATRICIA W. AHO  
COMMISSIONER

**RSU #18  
Messalonskee School District  
Kennebec County  
Oakland, Maine  
A-1064-71-B-M**

**Departmental  
Findings of Fact and Order  
Air Emission License  
Minor Revision**

## FINDINGS OF FACT

After review of the air emissions license minor revision application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

### I. REGISTRATION

#### A. Introduction

Messalonskee School District (Messalonskee) was issued Air Emission License A-1064-71-A-N on October 24, 2011, permitting the operation of emission sources associated with their educational facility.

Messalonskee has requested a minor revision to their air emission license in order to increase their annual wood fuel limit from 1,300 to 1,600 tons per year. Messalonskee originally planned to use oil to supply part of their heating needs. However, the wood-fired boiler has been able to meet the heating demands with very little oil consumption. In addition, the temperatures during the previous two winters have been below normal resulting in higher than estimated fuel demand.

The equipment addressed in this license is located at 34 Williams Court, Oakland, Maine.

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

B. Emission Equipment

The following equipment is addressed in this minor revision:

**Boilers**

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (tons/hr)</u>	<u>Fuel Type</u>	<u>Date of Manuf.</u>	<u>Stack #</u>
Boiler #1	8.8	0.89	Wood chips	2011	1

C. Application Classification

In 2011, Messalonskee installed a new wood fired boiler with a fuel limit of 1300 tons per year. This estimate was based on 20% of the heat coming from the oil fired units. Since start up, the unit has been the primary heat source with very little oil being used in the oil-fired units. Thus the original estimate of 1,300 tons/year has to be increased to 1,600 tons per year to account for the reduced oil being fired.

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

**II. BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boiler # 1

Messalonskee operates Boiler #1 for heat. The boiler is rated at 8.8 MMBtu/hr and fires wood chips. The boiler was installed in 2011 and exhausts through its own stack. The minor revision will result in an increase of the wood fuel fired on an annual basis; however, this increase does not alter the BACT/BPT findings for Boiler #1 in Air Emission License A-1064-71-A-N.

C. Annual Emissions

Messalonskee shall be restricted to the following annual emissions, based on firing 100,000 gallons per year (calendar year basis) of oil and 1,600 tons of wood per year based on gross weight purchase records throughout the year.

**Total Licensed Annual Emissions for the Facility**  
**Tons/year**  
(used to calculate the annual license fee)

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Oil-fired Boilers	0.9	0.9	3.5	2.8	0.2	0.1
Wood-fired boiler	2.0	2.0	0.3	1.7	4.8	0.1
<b>Total TPY</b>	<b>2.9</b>	<b>2.9</b>	<b>3.8</b>	<b>4.5</b>	<b>5.0</b>	<b>0.2</b>

D. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### III. AMBIENT AIR QUALITY ANALYSIS

Messalonskee previously submitted an ambient air quality impact analysis for air emission license A-1064-71-A-N demonstrating that emissions from the facility, in conjunction with all other sources, do not violate Ambient Air Quality Standards (AAQS). An additional air quality impact analysis is not required for this renewal.

### ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-1064-71-B-M subject to the conditions found in Air Emission License A-1064-71-A-N and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

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**SPECIFIC CONDITIONS**

The following replaces Specific Condition (16) B. in Air Emission License A-1064-71-A-N

**(16) Boiler #1**

B. Total fuel use for the wood fired boiler #1 shall not exceed 1600 tons per year (calendar year basis) based on gross weight purchase records throughout the year and a heating value for 45% moisture wood of 4950 Btu/lb.

DONE AND DATED IN AUGUSTA, MAINE THIS 13 DAY OF April, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Maureen Allen Robert Corne for  
PATRICIA W. AHO, COMMISSIONER

**The term of this amendment shall be concurrent with the term of Air Emission License A-1064-71-A-N.**

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/20/2015

Date of application acceptance: 3/24/2015

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa Higgins, Bureau of Air Quality.

